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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Case No. 01-1633-A)

In re Application of:	)	
	)	
Storhoff, et al.	)	
	)	Examiner: TBA
Serial No.: 10/612,422	)	
	)	Art Unit: 1645
Filed: July 2, 2003	)	
	)	Confirmation No. 6581
For: Nanoparticle Polyanion Conjugates and	)	
Methods of Use Thereof in Detecting	)	
Analytes	)	

**TRANSMITTAL LETTER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

- In regard to the above identified application.
1. We are transmitting herewith the attached:
    - a) Second Supplemental Information Disclosure Statement with copies of 12 references
    - b) IDS PTO Form-1449
    - c) Return Receipt Postcard
  2. With respect to fees:
    - a) No check is attached.
    - b) **General Authorization:** Please charge any underpayment or credit any overpayment our Deposit Account, No. 13-2490.
  3. **CERTIFICATE OF MAILING UNDER 37 CFR § 1.8:** The undersigned hereby certifies that this Transmittal Letter and the paper, as described in paragraph 1 hereinabove, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 6 day of August, 2004.

Date:

Aug. 6, 2004

Respectfully submitted,

Emily Miao

Registration No. 35,285



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Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Sir:

In order to comply with discretionary regulations 37 CFR §§1.97 and 1.98, attached hereto is Form PTO-1449, copies<sup>1</sup> of the documents listed thereon. These documents contain information which the Examiner may consider to be important in deciding whether to allow the present application to issue as a patent.

1. Stimpson, et al., U.S. Patent No. 5,599,668 issued 02/04/97.
2. Alivisatos, et al., U.S. Patent No. 5,751,018 issued 05/12/98.

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<sup>1</sup>To the extent that a document is listed and no copy of same is attached, then such document is not at the present time available to the undersigned or is available in the file of a parent application. If a listed document is not in the English language and an English translation is readily available, such translation is also attached; if translation is not attached it is not readily available to the undersigned. If a foreign language patent document is cited, and an English language equivalent is known to the undersigned, then such equivalent patent is also cited on the attached form along with the corresponding foreign language patent and a connecting arrow indicated therebetween; if no such English language equivalent is cited, then none is known to undersigned.



3. Weiss, et al., U.S. Patent No. 5,990,479 issued 11/23/99.
4. International Patent No. WO 92/04469 published 05/19/92.
5. Stimpson, et al., "Real-time detection of DNA hybridization and melting on oligonucleotide arrays by using optical wave guides," *Proc. Natl. Acad. Sci.*, Vol. 92, pp. 6379-6383, California Institute of Technology (1995) U.S.
6. Storhoff, et al., "Strategies for Organizing Nanoparticles into Aggregate Structures and Functional Materials," *Journal of Cluster Science*, Vol. 8, No. 2, pp. 179-217, Plenum Publishing Corporation (1997) U.S.
7. Storhoff, et al., "One-Pot Colorimetric Differentiation of Polynucleotides with Single Base Imperfections Using Gold Nanoparticle Probes," *J. Am. Chem. Soc.*, Vol. 120, pp. 1959-1964, American Chemical Society (1998) U.S.
8. Tomlinson, et al., "Detection of Biotinylated Nucleic Acid Hybrids by Antibody-Coated Gold Colloid," *Analytical Biochemistry*, Vol. 171, pp. 217-222, (1988)
9. Velev, et al., "In Situ Assembly of Colloidal Particles into Miniaturized Biosensors," *Langmuir*, Vol. 15, No. 11, pp. 3693-3698, American Chemical Society (1999) U.S.
10. Zhu, et al., "The First Raman Spectrum of an Organic Monolayer on a High-Temperature Superconductor: Direct Spectroscopic Evidence for a Chemical Interaction between an Amine and  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ ," *J. Am. Chem. Soc.*, Vol. 119, pp. 235-236, American Chemical Society (1997) U.S.
11. Yguerabide, et al., "Light-Scattering Submicroscopic Particles as Highly Fluorescent Analogs and Their Use as Tracer Labels in Clinical and Biological Applications," I. Theory, *Analytical Biochemistry*, Vol. 262, pp. 137-156 (1998) U.S.
12. Yguerabide, et al., "Light-Scattering Submicroscopic Particles as Highly Fluorescent Analogs and Their Use as Tracer Labels in Clinical and Biological Applications," II. Experimental Characterization, *Analytical Biochemistry*, Vol. 262, pp. 157-176 (1998) U.S.

In accordance with MPEP Sections 609 and 707.05(b), it is requested that each

document cited (including any cited in applicant's specification which is not repeated on the attached Form PTO-1449) be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider a cited document to be sufficiently pertinent to use in a rejection, or otherwise does not consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application.

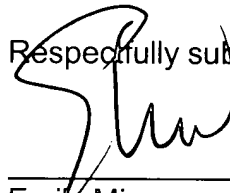
The present Disclosure Statement is being submitted in compliance with 37 CFR 1.56 insofar as an Examiner might consider any of the cited documents important in deciding whether to allow the application to issue as a patent, but the citation of each document is not to be construed as an admission that such document is necessarily relevant or prior art. No representation is intended that the cited documents represent the results of a complete search, and it is anticipated that the Examiner, in the normal course of examination, will make an independent search and will determine the best prior art consistent with 37 CFR 1.104(a) and 1.106(b) and, in the course of each search, will review for relevance every document cited on the attached form even if not initialed.

Early and favorable consideration is earnestly solicited.

Dated: \_\_\_\_\_

*Aug. 6, 2007*

Respectfully submitted,



Emily Miao

Registration No. 35,285

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FORM PTO-1449  
(Rev. 2-32)U.S. Department of Commerce  
Patent and Trademark Office

Atty. Docket No.

Serial No.

01-1633-A

10/612,422

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

Storhoff, et al.

Filing Date:

July 2, 2003

Group:

1645

## U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1.	5,599,668	02/04/97	Stimpson, et al.			
	2.	5,751,018	05/12/98	Alivisatos, et al.			
	3.	5,990,479	11/23/99	Weiss, et al.			

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No
	4.	WO 92/04469 -	05/19/92	PCT			

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	5.	Stimpson, et al., "Real-time detection of DNA hybridization and melting on oligonucleotide arrays by using optical wave guides," <i>Proc. Natl. Acad. Sci.</i> , Vol. 92, pp. 6379-6383, California Institute of Technology (1995) U.S. -
	6.	Storhoff, et al., "Strategies for Organizing Nanoparticles into Aggregate Structures and Functional Materials," <i>Journal of Cluster Science</i> , Vol. 8, No. 2, pp. 179-217, Plenum Publishing Corporation (1997) U.S. -
	7.	Storhoff, et al., "One-Pot Colorimetric Differentiation of Polynucleotides with Single Base Imperfections Using Gold Nanoparticle Probes," <i>J. Am. Chem. Soc.</i> , Vol. 120, pp. 1961-1964, American Chemical Society (1998) U.S. -
	8.	Tomlinson, et al., "Detection of Biotinylated Nucleic Acid Hybrids by Antibody-Coated Gold Colloid," <i>Analytical Biochemistry</i> , Vol. 171, pp. 217-222, (1988) -
	9.	Velev, et al., "In Situ Assembly of Colloidal Particles into Miniaturized Biosensors," <i>Langmuir</i> , Vol. 15, No. 11, pp. 3693-3698, American Chemical Society (1999) U.S. -
	10.	Zhu, et al., "The First Raman Spectrum of an Organic Monolayer on a High-Temperature Superconductor: Direct Spectroscopic Evidence for a Chemical Interaction between an Amine and Yb <sub>2</sub> Cu <sub>3</sub> O <sub>7-δ</sub> ," <i>J. Am. Chem. Soc.</i> , Vol. 119, pp. 235-236, American Chemical Society (1997) U.S. -

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

**FORM PTO-1449**  
(Rev. 2-32)

**U.S. Department of Commerce**  
**Patent and Trademark Office**

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**FOREIGN PATENT DOCUMENTS**

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11.	Yguerabide, et al., "Light-Scattering Submicroscopic Particles as Highly Fluorescent Analogs and Their Use as Tracer Labels in Clinical and Biological Applications," I. Theory, <i>Analytical Biochemistry</i> , Vol. 262, pp. 137-156 (1998) U.S.
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